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(d) detecting the presence of any compound specifically bound to said receptor or portion thereof, thereby determining whether said compound specifically binds to said receptor or portion thereof.

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62. The method according to claim 61, further comprising the steps of preparing a cell extract from the cell transfected with said nucleic acid molecule, isolating a membrane fraction of said cell extract, and contacting said sample with said membrane fraction under conditions permitting binding of the compound to said fraction.

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63. The method according to claim 61, wherein said detecting is performed by monitoring a change in the signaling activity of said CCR5 chemokine receptor or portion thereof.

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64. The method according to claim 61, wherein said detecting is performed by monitoring the acidification rate of said host cell.

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65. The method according to claim 63, wherein said detecting is performed by monitoring the level of intracellular calcium in said host cell.

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66. The method according to claim 63, wherein said detecting is performed by monitoring the stimulation of an intracellular cascade.

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67. The method according to claim 63, wherein said detecting is performed by monitoring the level of inositol triphosphate.

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68. The method according to claim 61, wherein said compound is an agonist of CCR5.

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69. The method according to claim 61, wherein said compound is an antagonist of CCR5.

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70. The method according to claim 61, wherein said cell is selected from the group consisting of CHO-K1, HEK293, BHK21, and COS-7.

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71. The method according to claim 61, wherein said cell is exposed to said sample suspected of comprising said compound, in the presence of a ligand for the CCR5 receptor.

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72. The method according to claim 71, wherein said ligand which is the CCR5 chemokine is labeled.

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73. The method of claim 71, further comprising measuring the infectivity of the cell by HIV.

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74. The method according to claim 73, wherein said infectivity of the cell by HIV is measured by measuring the production of an HIV protein.

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75. The method according to claim 74, wherein said HIV protein is p24.

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76. The method of claim 73 wherein said compound decreases infectivity by HIV by at least two-fold.

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77. A method for identifying a compound which specifically binds to the CCR5 chemokine receptor whose amino acid sequence is SEQ ID NO 5, the method comprising the steps of

- (a) transfecting a cell with a nucleic acid molecule encoding said receptor or said portion thereof;
- (b) expressing said receptor or portion thereof under conditions permitting specific binding of said compound to said receptor or portion thereof;
- (c) exposing said cell to said compound; and
- (d) detecting the presence of any compound specifically bound to said receptor or portion thereof, thereby determining whether said compound specifically binds to said receptor or portion thereof.

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78. The method according to claim 77, further comprising the steps of preparing a cell extract from the cell transfected with said nucleic acid molecule, isolating a membrane fraction of said cell extract, and contacting said sample with said membrane fraction under conditions permitting binding of the compound to said fraction.

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79. The method according to claim 77, wherein said detecting is performed by monitoring a change in the signaling activity of said CCR5 chemokine receptor or portion thereof.

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80. The method according to claim 77, wherein said detecting is performed by monitoring the acidification rate of said host cell.

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81. The method according to claim 79, wherein said detecting is performed by monitoring the level of intracellular calcium in said host cell.

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82. The method according to claim 79, wherein said detecting is performed by monitoring the stimulation of an intracellular cascade.

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83. The method according to claim 79, wherein said detecting is performed by monitoring the level of inositol triphosphate.

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84. The method according to claim 77, wherein said compound is an agonist of CCR5.

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85. The method according to claim 77, wherein said compound is an antagonist of CCR5.

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86. The method according to claim 77, wherein said cell is selected from the group consisting of CHO-K1, HEK293, BHK21, and COS-7.

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87. The method according to claim 77, wherein said cell is exposed to said compound, in the presence of a ligand for the CCR5 receptor.

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- 77 7b
88. The method according to claim 87, wherein said ligand which is the CCR5 chemokine is labeled.
- 78 6b
89. The method of claim 77, further comprising measuring the infectivity of the cell by HIV.
- 79 7a
90. The method according to claim 89, wherein said infectivity of the cell by HIV is measured by measuring the production of an HIV protein.
- 80 7a
91. The method according to claim 90, wherein said HIV protein is p24.
- 81 7b
92. The method of claim 89 wherein said compound decreases infectivity by HIV by at least two-fold.

REMARKS

Upon entry of this amendment, claims 60-92 are pending. No new matter is introduced by this amendment. Support for the newly added claims may be found in the specification as originally filed and at least at pages 3-8, 10-12, and page 36.